AMERICAN ARTISAN Hardware Record

1924

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THE SUPER-SMOKELESS FURNACE

THE BIG BUSINESS BUILDER

Super-Smokeless Furnace dealers can build up a big business by furnishing their cus-incertomers with furnaces that will burn soft coal smokelessly and with great efficiency, thus eliminating the smoke nuisance and saving fuel.

Satisfied customers are a contractor's best advertisement, and bring new business. It will be to YOUR interest to become a SUPER-SMOKELESS Dealer. Send for literature and Special Dealer Proposition.

UTICA HEATER COMPANY UTICA, N. Y. 218-220 West Kinzie St., CHICAGO

THE SUPER-SMOKELESS FURNACE

SYSTEM OF CIRCULATING HEAT

CALORIC AND MONITOR FURNACES EASY TO SELL

New, exclusive, improvements that are revolutionizing furnace construction give Caloric and Monitor Dealers unequalled selling advantages:

One-piece radiator with smoke and cleanout collars cast on—a masterpiece of the molder's art. Absolutely eliminates smoke, dust and gas leaks.

Expansion front, reinforced grate shaking device, one-piece base ring and many other improvements.

A practical and simple Time Payment Plan. Cash for the Dealer, Credit for the Customer at reasonable rates.

National Advertising in the foremost publications. Our dominating campaigns have made the Caloric and Monitor trademarks the best known to the public.

MOMITOR PIPE FURNACES

When Winter Comes-

will your furnage business show good profit?



Published to Serve the Warm Air Furnace Sheet Metal, Stove and Hardware Interests

AMERICAN ARTISAN Hardware Record

Address all communications and remittances to AMERICAN ARTISAN . AND HARDWARE RECORD 620 South Michigan Avenue CHICAGO, ILLINOIS

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GIVE YOUR IDEAS PUBLICITY

MAKING MEN proud of their work never cuts production or diminishes quality. But constant drain of their sense of fulfillment does that very thing.

YOU HAVE ONE excellent way to make your superintendent or your foreman or one or a group of your workmen proud of their work. The way is this:

SUPPOSE in your organization there has been solved one of the constant problems that always accompany construction. The problem may be nothing more than some new way of placing a machine so that production is increased. Or the problem may have been the expeditious repair of equipment. One hundred and one thousand possibilities present themselves.

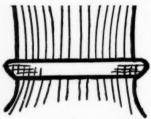
thousand possibilities present themselves.

NOW IF YOU will write the occurrence in a letter to the editor of AMERICAN ARTISAN AND HARDWARE RECORD and send a picture if possible, the event can be given publicity. It will be interesting to other contractors and their forces, and it will create a spirit in your own organization that will help wonderfully in getting results.

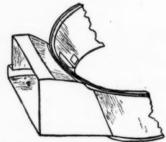
ALPHABETICAL INDEX AND CLASSIFIED LIST OF ADVERTISERS, Pages 44-46-48.



Sealed Cup Joints where castings join



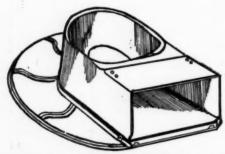
Expansion Rings where radiator sets in the combustion chamber



One-piece Feed Chute — no joints, cast with the combustion chamber



Heavy Cast Iron Radiator made without seam or joint, entirely self-cleaning



No Joints in Ashpit—pit springs into position in flange of base, making it absolutely tight

Guarding Against Gas Leakage

in the construction of all
INTERNATIONAL CARTON FURNACES

EVERY cast iron furnace is made up of several separate castings. In this respect there is a remarkable similarity in design, but how these castings are designed, constructed and united into a complete heater is of vital importance, and where the Carton is superior to the ordinary furnace.

A weakness in construction, faulty installation, or a poorly designed joint will soon cause a furnace to leak smoke and gas.

When this occurs you are blamed, even though it may be a fault of construction.

INTERNATIONAL Carton furnaces are built to satisfy the most exacting customer. At every point where castings connect joints of proper size and design have been provided. All unnecessary joints have been eliminated. The possibility of gas leakage is reduced to minimum.

Of course it costs more to make a furnace with few joints, self-cleaning radiator and sealed cup joints, but figure what it means to you to have a furnace like this to offer your customers.

Furthermore, the Carton has demonstrated its ability to stand up under hard usage and give years of economical and satisfactory service.

In nearly every community there are Carton Furnaces which have been in use from 30 to 60 years. We are telling your prospects these facts thru our National Advertising.

Will you be ready to supply the demand? Send for Catalog 1563-A and complete information

INTERNATIONAL HEATER COMPANY UTICA, N. Y.



The Man Who Tries to Carry Water on Both Shoulders Always Spills It.



THERE are two sorts of people who are of very little use in this world.

One is the class that attempts to carry water on both shoulders—

The other is the class that refuses to carry any water at all.

At first, one might be inclined to think that the people of the first class were really trying to do something worth while.

But when that phrase was first coined water was carried in pitchers, and anyone who has ever tried to carry a tall pitcher on each shoulder and steadying them with his hands will know that it simply cannot be done. It is a physical impossibility.

The person who makes such an attempt thereby stamps himself either as an impractical person or as a man who has no real conviction.

In both cases he is incapable of rendering useful service.

The man in the class of those who refuse to carry water by his very refusal to commit himself signifies that he is afraid to state his opinion, for fear that he may thereby antagonize someone whose money or goodwill he hopes to secure or keep.

In other words, his opinion is really for sale. American Artisan has an established policy. Editorially, it expresses that policy fearlessly, as in the editorial which appeared in our issue of August second, entitled "Pittsburgh Plus Ruling Is Not Likely to Affect

Steel Prices Very Much."

In our news columns the same policy is maintained—that whatever is of real news interest in the field which we serve is always welcome, but that "puff" material is always declined, because the reading columns belong to our subscribers. They pay for the information contained in these columns, and "puffs" are not classed by us as "information."

Our advertising pages are for sale—not to the highest bidder, but on equal terms for equal space.

But even here we draw the same straight division line: Only such advertising is accepted as we consider will be of service to our subscribers.

Without being inclined to pat ourselves on the back we do feel that the success that American Artisan has had under its present management is due, at least to some extent, to the fact that we have made a conscientious effort to maintain a positive, constructive policy and to render a real service to our subscribers and to our advertisers.

Subscribers renew their subscriptions because they find in the publication that which helps them in their business. American Artisan is not only readable, but it contains a great mass of valuable, helpful information in its various issues.

And the retained list of old subscribers, together with a steady growth of new subscribers, makes it profitable for concerns who manufacture and sell material, supplies, tools and machinery, such as are used in the furnace, sheet metal, stove and hardware business, to use our advertising pages for their announcements.

American Artisan is rendering real service, and on the basis of that service is built our Castle of Success.

* * *

When a prospective customer tells you that he can get the job done for less money than you ask him, but that he prefers to give it to you if you will meet the other fellow's price, he admits that you will do a better job—and that is worth the difference, provided you stand up and tell him so. Then he will pay your price.

Random Notes and Sketches. By Sidney Arnold

S. P. Moncrief, the elder brother of "Dick" and president of the Georgia sheet metal contractors, evidently believes in getting in with the ladies, for he has bought a very nifty souvenir by which the recipient is reminded of the fact that he heats homes, churches and residences with Moncrief furnaces. The souvenir is in the form of a glass paper weight, but the back is fixed up so that if a lady gets hold of it, the advertising matter will never be read, for she will be looking into the mirror on the bottom.

Incidentally, Mr. President, did you not know that I have been accused of carrying a pocket mirror with me on my travels—I might use one of your souvenirs on my desk, for its proper purpose, of course.

Dr. John P. Wagner, president of the Dowagiac Manufacturing Company, gave me a pleasant call the other day. He says that their new steel furnace is practically ready for production in all sizes and that it is one to be proud of.

R. E. Thompson, the Monitor furnace representative in Des Moines, came in for a bit of information the other day. He says that our editor must have a regular index system in that big head of his, for he seems able to answer more questions about furnaces and sheet metals and their accessories than any man Mr. Thompson knows. What he wanted was the address of the maker of a cylinder fan. He got it.

She was a dainty young thing, dressed in the latest fashion, and as she stepped up to the information desk the office boy gasped, then grinned, as she came to a stand-still before him.

"Yes, miss?" he asked, rather impertinently.

"Could you tell me if Mr. Ralph Blanchard is in?" she asked. The boy nodded and pointed vaguely over his shoulder at the open door.

The girl hesitated for a moment. "Do you know if he is engaged?"
He almost shouted, "Engaged!
Why he's married and is a grandpa."

Young and old alike were scampering kids without a care in the world for a few short hours which passed all too soon when the Chicago hardware men held their annual picnic at Klein's Grove recently.



Those shown in the illustration were particularly devilish, as will be seen by their smiling countenances.

They are, from left to right, standing: Andy Dease, Mrs. J. M. Foley, F. R. Cook and Mrs. O. H. Reiche.

Left to right, seated, are: A. C. Olendorf, J. M. Foley, O. H. Reiche, D. J. Zweifel.

I am sure that the many friends of George F. Mooney, the hustling Secretary of the Ohio Sheet Metal Contractors' Association, will be glad to know that he is well on the way to complete recovery from his recent operations for appendicities and gall bladder.

Here is a letter that tells just how he feels about it:

DEAR SIDNEY ARNOLD:

I am very thankful to be able to send you this scribble from my home. As you know, I was operated on for the removal of my appendix and gall bladder on the morning of August 9th and was brought home on the evening of the 25th. At the present rate of progress I will return to my office in a week or ten days.

I am encouraged to believe that there is still a lot of fun in store for me. My surgeon assures me that all the useless and mischievous organs are removed and that those which remain are as good as new.

> Yours sincerely, George F. Mooney.

George likes fun, as those will testify who attended the recent Ohio Convention, and he likes work that brings results even better.

Many of the "old sayings" by which the generations long since departed were wont to govern their actions and associations are now completely extinct, or at least have lost their original force and have been relegated to the realm of folk lore.

There is, however, one that still persists, perhaps because of the truth—???? which it contains.

R. S. "Tommy" Thompson, who travels Ohio for the Mt. Vernon Furnace & Manufacturing Company, Mt. Vernon, Illinois, makers of the Vernois furnace, sent me the following poem, together with a complaint similar to the one mentioned heretofore:

The Laplander.

A maid entered a suburban bus,
And firmly grasped a strap,
And every time they hit a hole
She sat in a different lap.
The holes grew deeper, the jerking
worse,
Till at last she gasped with a smile,

"Will someone kindly tell me, please, How many laps to a mile?"

What I shall do about this singular irregularity in one so young, I shall leave to the discretion of the first of his fellow travelers who meets him.

Small Refrigerating Machine Used In Summer Ventilation and Cooling Office Building.

Peter H. Bryce, M. A., Relates How Problem of Maintaining Proper Humidity in Office Building Was Solved.

PETER H. BRYCE, M. A., writing in the *Heating and Ventilating Magazine* for August, has told how a small refrigerating machine was used to reduce the indoor temperature of an office building from 80 degrees to 70 degrees and which at the same time maintained a relative humidity of 70 per cent.

Mr. Bryce's article follows:

A summer or two ago the manager of a large printing establishment, whose office building had been equipped by the writer with a humidifying apparatus for winter use, said the office would be perfect if a large office room some 40 feet square could be made cool and comfortable in the summer time. This room has windows 10 feet high on two sides, looking south and east. In the hot summer months, in spite of blinds, the temperature in this room climbs at times up to 90 degrees Fahrenheit. As the writer had previously worked over the ventilation details of passenger ships going through the tropics, the problem appeared to be comparatively a simple one, since it had been found quite possible, when the Ottawa (Canada), city water temperature did not rise above 65 degrees or 70 degrees, being taken from a large river rising in the northern woods, to allow water to flow slowly through the hot water pipes of the heating system. This, of course, reversed winter operation of the system and, with closed windows, supplied a very pleasing solution of the cooling problem.

Objections to Use of Cold Water in Pipes of Heating System.

But the scheme had two objections, the first being that to waste a public water supply during the dry weather of summer, if generally practiced, would tend to exhaust the water resources at a time when the largest amount was being used for lawn and street sprinkling and to in-

crease the public cost of pumping; while the second was that it did not provide for any current of fresh air being brought in from the outside which would maintain a proper degree of freshness and humidity.

Selection of Refrigerating Unit.

Hence it was decided to work out the 40x40-foot room problem along lines similar to those on which the

How Much Larger?

A 22-inch horseshoe radiator furnace was removed and replaced with a 26-inch furnace of similar type.

Should the cold air ducts be made larger?

How much larger?

Should the warm air pipes be larger?

How much?

What would happen if the cold air ducts remained as they were—just large enough for the 22-inch furnace?

Send your answer with reasons to

AMERICAN ARTISAN AND

HARDWARE RECORD 620 So. Michigan Blvd., Chicago

winter supply of humidity in houses office to any desired point. Wishing to insure economy with efficiency, the writer tried to make use of every natural agency to lessen the temperature and to utilize the cooling effect produced by the ice machine to the greatest extent possible. To do this the following details were worked out:

Measures Taken to Insure Economy with Efficiency.

- 1. To cut off the direct sunlight from all windows by awnings of white duck, this being both the best reflector and poorest absorbent.
- 2. To provide for the introduction into the room of outer air at

four o'clock in the morning, when the summer air is at its minimum temperature and can hold the least was based; namely, the capacity of air for moisture at different temperatures, and the application of a cooling effect by a mechanical refrigeration apparatus.

Luckily, a small refrigerator was found on the market, driven electrically, with an automatic thermostat, which could be set to keep the temperature of the cooling room or water vapor.

3. To reduce the air temperature to the point where it will deposit moisture, when the saturation point is reached, by passing it into

the room in the basement contain-

ing the refrigeration coils.

4. To transmit the cooled air into the office where it will rise in temperature and so increase its capacity for moisture and, by its forward movement, mingling with the warm indoor air, take up moisture and at the same time reduce the temperature to the desired point of 70 degrees Fahrenheit.

- 5. To provide in the floor of the office return ducts from registers, placed in the four corners of the room, to lead the room air back to the coil room, where the air will become mingled with outer fresh air in measured quantities and with it be cooled, any excessive moisture being precipitated on the pipes, and so again pass into the circulation of the office, thus maintaining a continuous air movement throughout the whole day.
- 6. To insure, as in mechanical winter ventilation, that doors and windows be closed. This requires a given amount of cooling down by the ice machine.

Features of the Problem.

To illustrate, any room similar to the office already spoken of may be taken, having a cubic capacity of 25,000 cubic feet, in which an air movement equal to one change per hour is sought. To effect this, it will be necessary to deliver air through a central inlet duct in the floor of the room having a capacity of 2 square feet and an air velocity of 3.5 feet per second.

As this is a low air velocity, it will be found in practice, with the inlet of outer air into the coil rooms along with the return air from the office, that a continuous current will tend to be set up, owing to the difference of temperature. But to insure a standard change of air it will be necessary to place a small electric fan in a duct beneath the floor to give direction to the current from the coil room into the office.

There was thus a definite problem to solve such as the following:

Assuming that outside air at 4 a. m. in summer drops to 70 degrees Fahrenheit, and that the office air. at that hour is 80 degrees Fahrenheit, obviously the first thing to do is to open all windows and try to get the room temperature, by cross ventilation, to approximately 70 degrees. Having accomplished this, all windows and doors must be closed to retain room coolness as long as possible. But soon the external air becomes heated and by 8 a. m., the work hour, the building is beginning to heat up. Assuming it would have again reached 80 degrees had no cooling taken place, the problem is to supply enough cold air to remove from the room air into the cooling chamber sufficient heat to hold the temperature at 70 degrees.

It is proposed to utilize for this purpose a 2-ton ice machine which will have a cooling effect about equal to 25,000 B. t. u. per hour continuously. As this happens to be the same figure as the cubic contents of the room, it is seen, other conditions remaining the same, that we could introduce that amount of air into the room hour by hour and so remove one degree of heat from each cubic foot of air.

Now, clearly, with the heating of wall surfaces and the number of heat units given off from the bodies of the office employes, each with a body temperature of 98.4 degrees, it will not be possible to introduce that much fresh air from the outside with an ice machine of the above capacity. But modern teaching has already proved that there is abundant oxygen in ordinary house air for health purposes if it be kept

of the proper temperature and humidity and in constant movement. This obviously becomes possible through the constant return of the room air through the floor registers to the cooling room, supplied with coils chilled by expanding ammonia or carbonic acid.

Estimating the Heat Production Within the Room.

We have now to find some rule to estimate the heat production within the room. If the ordinary estimate be taken of one person to each 1,000 cubic feet of space, our room would have in it 25 persons. If at desk work, each would give off, as body heat, some 140 B. t. u., so that, in all, 3,500 B. t. u. would be added to the temperature per hour from the bodies of the inmates. Assuming that, by direct heat radiation from the sun, twice as much heat is added to the air of the room, we have in this way 10,500 B. t. u. added that must be removed by cold air. Hence, to make the calculation easy on this basis, we can say that an equal amount of outside and of room air must be drawn each hour over the cooling coils of the ice machine, or an amount of fresh air equal to half the capacity of the room must be drawn in by the fan hourly and mingled with an equal amount of the air of the room, which has been brought into the cooling chamber.

Thus, if the air of the room, or outside, has reached 75 degrees and has a relative humidity of 75 per cent, it will, if drawn into the cooling room, be cooled down and, at 69 degrees, become saturated. Its excess moisture then begins to be deposited on the cold pipes. On the other hand, if it is driven into the office room by the fan and mingles with the room air, the relative humidity will rise again to a normal of about 70 per cent.

A few further particulars may be added. Obviously, we have in this simple arrangement an apparatus designed to do a definite piece of work. The several factors are known and the variations in the amount of air brought in from the outside and from the office space

can be definitely provided for by dampers in the ducts from the outside and from the office, which enter into the cooling room. They can readily be adjusted from the office where is placed a simple dry and wet-bulb thermometer to record both temperature and humidity. If comfort and efficient work through the long trying days of summer are so essential a desideratum in thousands of offices, we have in this a method, supplied at the cost of a few cents daily after the first installation, which will meet all requirements.

Electros of New Slogan for Warm Air Furnace Industry Are Now Ready.

In the accompanying illustration we show the text matter of the new slogan which has been approved by the Publicity Committee of the National Warm Air Heating and Ventilating Association, as it appears in electrotype form.

Warm Air heating system is Best For the average Home Convince the public by telling them constantly

Full Size Electrotype of Warm Air Furnace Slogan.

It is the purpose of the Publicity Committee that the members of the Association procure several of these electros and incorporate them in their advertisements in trade papers, circulars, catalogs, broadsides, etc., in order that the necessity for local and personal advertising may be impressed upon the installer—the man who in the final analysis must sell the furnace.

Hart & Cooley Company Announce Change in Register Prices

The Hart & Cooley Company, Inc., New Britain, Connecticut, announce an increase in the price of registers effective September 1, 1924. For the new prices see prices listed under "Hardware and Metal Prices" on page 42 of this issue.

Granite City Furnace Installer Believes That Pleased Customers Will Help Him.

Southwick Publishes Large Advertisement Quoting Statements of Satisfied Customers.

I WILL be remembered that the Southwick Metal Company, Granite City, Illinois, conducted an advertising campaign on warm air furnaces last winter, a feature of which was a contest, cash prizes being awarded for the best letters from customers telling about the salient points of the furnaces installed by the company. The editor of AMERICAN ARTISAN served as judge in the contest.

Mr. Southwick has followed up this contest with newspaper advertisements and "broad sides," making use of some of the letters that he received, and one of the latest of these is an immense sheet-24x36 inches-on which the "Evolution of the Perfect Furnace" is featured by showing illustrations of the old fashioned "cannon" stove, said to be invented about 1840, of the "horse shoe" radiator furnace, produced at the time of the Civil War, and of the "open dome" type which made its appearance about 1870, and "then came the famous Weir."

Thirty-six of the afore-mentioned letters are reproduced and it is interesting to note that of these nineteen are from buyers of the Weir and that in all the other cases where a name is mentioned it is one of two other makes of steel furnaces. Evidently Mr. Southwick is sold on that kind of heating apparatus.

The first letter quoted in this big advertisement is the one that won first prize in the contest already referred to and it is so good that we are going to publish it again, particularly because it brings out very forcibly the value of establishing and maintaining a reputation for knowing one's business and doing good work:

My DEAR MR. SOUTHWICK:

It had not been my intention to reply to your request for a testimonial as to your ability to install a heating plant on the scientific principles of heat distribution, but on second thought I can see no reason why a man should not take pride in doing his work well and in asking for commendation when he has done so.

When we let the contract for our residence, in the spring of 1920, we did not include a heating system, preferring to deal directly with one whom we believed understood the correct principles of heat distribution and whose reputation for service and efficient work was known to us and not take a chance on some unknown firm getting the contract on a competitive bid.

Having known your firm in a business way for many years and having you in mind when we contracted to build, the heating problem was adjusted by the time the dwelling was under roof and while we did not quite agree on everything, we permitted you to use your judgment resulting in a heating system meeting all the requirements of this erratic climate and producing all the comforts one could wish for on the coldest and bleakest days.

I may add that if we were to build again, tomorrow, we would give you the job of installing the heating system without a competitive bid from others.

> Yours very truly, John B. Judd, 2448 C Street.

The second letter, also a prize winner, follows:

DEAR MR. SOUTHWICK:

It gives me pleasure to avail myself of this opportunity of giving a testimonial upon the merits of the Weir furnace, which you installed for me and upon the comfort and satisfaction which we derive from it.

To begin with, at the time my home was built, I must confess, that I felt slightly dubious as to the ability of a hot air furnace to successfully heat so large a house; however, I am glad to say that my doubts have not only been proven groundless, but that the furnace has more than fulfilled all the claims which you made for it at the time of installation. Even during the recent severe cold weather which we had in the month of January, I found that the rooms having a northern exposure were kept at a comfortable temperature without any extra effort and a surprisingly small amount of fuel.

In the selection of a heating plant and in deciding upon the Weir hot air system, I considered three things, in the order of their importance, namely: health, comfort and clean-In the consideration of liness. health, there are several outstanding features offered by the hot air furnace which are are not included in any other. Foremost of these is circulation: the constant movement of air to and from the furnace, the cold air being drawn into the heating chamber, where, by coming into contact with the heating drum, it is not only warmed but freed of germs and other impurities and is then passed on to the rooms, heated and refreshed. Here also must be mentioned an important and exclusive hot air feature, that of humidity. This is one of the many features in which the Weir undoubtedly excels, for with its large water pan conveniently located above the fire door, it provides sufficient evaporation to keep the air moistened as it should he

In the matter of comfort and cleanliness, there can be no question about a hot air furnace, installed as only your company can install them, for it certainly combines ease of operation, compactness of space and satisfactory results to the very best advantage.

Very truly yours, E. J. BAUMBERGER.

Editor's Note: There is no good reason why an installer should not ask for a written acknowledgement of good work when his installation has had time to prove itself, and there is every reason why he should make it a point to secure and keep on file such statements and to make use of them in a manner similar to that employed by the Southwick Metal Company.

The old saying, that a pleased customer is the best kind of advertising, still holds good, but unless you make use of the advertising in the most effective manner you are bound to lose some of the benefits. Mr. Southwick is making sure that prospective customers are informed of the fact that his customers are pleased.

What an Architect Thinks About Furnaces.

Says That It Is Poor Policy for Owner to Try to Save Money by Buying Low-Priced Furnaces.

I T is evident from the following article, which appeared in the August Bulletin of the National Warm Air Heating and Ventilating Association, that there is need for a lot of educating in the field of the architects, on the matter of what a furnace, properly installed and properly attended, will do. To many of them, "a furnace is a furnace and as such, it is largely a gamble."

The article follows:

A warm air furnace, to the average home builder, is too much like the old song—"All coons look alike to me."

An enclosed grate or burner with a tin pipe and a register, constitutes, in many people's minds, a furnace—and—"a furnace is a furnace," so why waste time in making a selection or pay more for one than for another, even if assured there is much difference in them.

The speculative builder, generally, selects the cheapest thing that looks like a furnace, whether it will act like one or not.

The heating system in a home, whether of medium cost or more expensive, should be given the same study and consideration as is given any other part of the building. A great many clients, when they come to an architect for plans, reserve the heating—they are a little shy on money anyhow, and endeavor to save on it but in the end spend a large amount each month on extra coal or gas trying to keep warm.

The selection and laying out of the warm air heating system should be as much the architect's duty as the construction of the roof or any other part of the building. Of course, there may be architects who probably are no more competent to do one than the other, but we are not considering them.

Too often the locating of the furnace is merely putting it in where nothing else is to go. Another mistake made, is omitting the furnace itself and having a roofer or tinner put in the risers. He has no interest in the final working of the heating system and later when the furnace is purchased from some one else and installed it does not work properly and the furnace manufacturer bears the blame.

It is a foregone conclusion in this world that buyers get only what they pay for. If a cheap heating plant is purchased the buyer will probably get his money's worth, but by no means the same results as would be obtained from a first-class warm air job at a reasonable price. There can be no great variation of price on the same class of goods, so that a purchaser can rest assured that for every dollar he saves or tries to save beyond a reasonable limit, he is cutting just that many dollars of service or reliability out of his heating plant.

I would say, that a good furnace, properly installed, and attended to by a person of common sense is a very satisfactory mode of heating.

Wants to Know Why Coal Burns Up in Magazine of Stove.

To AMERICAN ARTISAN:

Will you please tell me through AMERICAN ARTISAN the cause of coal burning up in the magazine of a hard coal stove? Subscriber.

Carr Supply Company Issues Unique Blotter and Memo Pad.

Carr Supply Company, jobbers of furnaces and accessories, are using a combination blotter, calendar and memo pad, which is being mailed every month to their customers and other friends in the trade.

It is a handy desk article and may be obtained by writing to Edward P. Mott, 412 North Dearborn Street, Chicago.

Disturbing Elements in Trying to Get Something for Nothing.

The feverish resolve to get something for nothing has kept society disturbed and revealed tendencies that should have been everlastingly pent up in dark places. Farmers, school teachers, clerks, professionals were grist for the mill of the promoter who could paint the kind of picture that would suggest how to get something for nothing.

The material wealth of the nation was increased in 1923 probably ten billion dollars. This was material gain. But, how much have we gained in moral values. In the field of business the credit losses through character defects were never so large as in 1923. To a large extent it amounted to nothing more than stealing from creditors. But, what is the difference between that and taking a little graft on the side.

Let us scotch the demon; let us chase him until his legs grow weary; let us put him in chains. For, without morals, a nation cannot endure. Its leaders must place honor and justice first and the rank and file of the people must elevate honesty. and rather have their tongue clipped than to steal and defraud. Every right-thinking citizen, every redblooded man in business must recognize that without honor and honesty commerce cannot develop because credit is the foundation of commerce, and credit cannot survive without confidence based upon human morality.

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Something for Nothing Says E. H. Ward.

E. H. Ward, Lansing, Michigan, is a believer in the use of plenty of white space in his advertisements. He has a purpose in mind in doing

The tendency in productive advertising today is along educational lines. In a warm air furnace advertisement of today the outstanding features stressed are: health, economy of fuel, cleanliness, convenience. Unless one or all of these

which, in turn, makes fighting competition harder.

The advertisement of Shouldice Brothers shown herewith was taken from the Battle Creek, Michigan, News.

Something For Nothing

We have sold more high Grade furnace jobs in Lansing than any furnace organization here.

We give you the benefit of our experience.

Wise People Buy Wise Furnaces

E. H. WARD &

DAKLAND BLDG.



OPEN SATURDAY EVENING

An Attention-Getting Furnace Advertisement.

this. He visualizes his advertisement placed among others on the same page. He sees a black mass before him and wonders just how much chance his advertisement, of necessity a small one, has of being seen and read.

He starts out by saying something startling or unusual. He catches the reader's attention because he has left enough white space around the advertisement to give it a chance to be seen. It is unusual: it is distinctive. Although he does not say much, he gets his message across.

Shouldice Brothers Push Premier Warm Air Furnaces.

The boastful meaningless advertisement is rapidly making its exit in favor of copy with educational value. And why should it not? It serves no purpose. People are surfeited with advertisement superlatives. They don't believe in them any more, with good and sufficient cause.

four selling points are brought out in the advertisement the potentialities of it are apt to be greatly diminished if not entirely eliminated.

Too much stress cannot be laid upon the necessity of giving your advertisements the best possible

Express Rates in West and South Will Be Lowered.

Express rates throughout the country are ordered readjusted by the Interstate Commerce Commission, which authorized general increases in the eastern zone, approximating 8 per cent, and slight reductions in the west and the south.

The basic rate for the first fifty miles haulage in eastern trunk line territory is now approximately 15 cents. Increases have brought it to 24 cents. Under the readjustment the rate would be approximately 26 cents. The southern basic rate of 20 cents, which was horizontally increased to 30 cents, would be decreased to approximately 281/2

In the prairie states the basic rate of 24 cents, which was horizontally increased to 35 cents, would be readjusted to about 31 cents. The mountain territory basic rate of 28 cents. increased to 38 cents since 1918, would be brought down to approximately 31 cents.

The west coast rate of 24 cents. horizontally increased since 1918 to



The Finest Warm Air Heater Made

for those who want the best at a moderate price.

Our heating engineer will gladly advise you concerning your heating problems FREE.

Shouldice Bros.

SHEET METAL WORKS 79 W. Jackson St. Phone 246

Showing How Shouldice Brothers Push Premier.

chance to do their work. If this is not done, the advertiser finds himself face to face with the question: "Who pays for the ad that does not pull?" The answer, of course, is obvious. Advertisements that do not pull increase the operating costs

35 cents, would be reduced to about 31 cents.

Some would find fault with the morning-red, if they ever got up early enough. The faultfinder will find faults even in Paradise.

Nickel Zinc Is Suitable for Many Purposes But Requires Special Care in Handling.

Kothe Describes in Detail Principal Methods of Bending and Forming This New Metal.

THIS is the second article on the proper method of handling nickel zinc. The first appeared on pages 19 and 20 of our August 23rd issue.

In large flat surfaces, where it is desired to have a smooth, even top and make the joint as much hidden as possible, joints as at "H" and "I" may be used. Here ringlets are cut in the wood to permit holding the top surface smooth and even. At times butt joints are made as at "J" where the edge of the two sheets is carefully straightened and a strip, 1/2 inch wide or so, is placed over

the back. Here it is necessary to tack the several pieces at intervals of about six to twelve inches before any heavy soldering is done. But first, a person should tack each end, then the middle, and then between the centers and so on until a proper tying has been effected. The reason being that the zinc, under the influence of the hot copper, will draw out of line, but if tied at close intervals a proper connection is easily made.

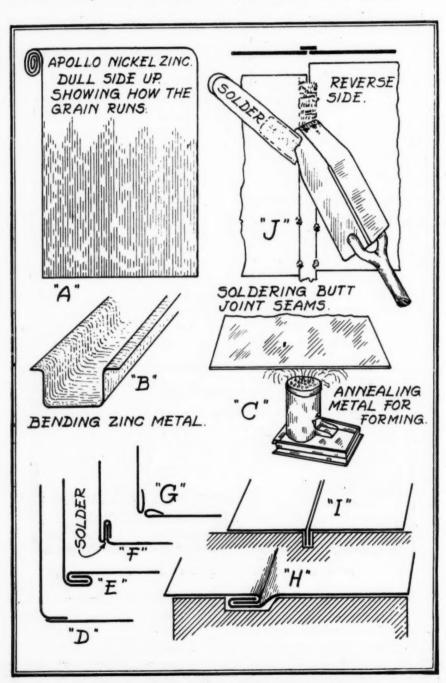
Now, soldering nickel zinc is quite important; it requires skill, in that a person must have practical judgment of this work. A good many thousand mechanics who do nothing but roughing in galvanized iron work, as guttering, roofing, piping, are used to the strength required for iron. That is their practical judgment. But nickel zinc requires a finer perception, a better controlled hand and a masterly application of the soldering copper.

Use Cut Acid When Soldering.

New nickel zinc should be soldered with cut acid, although the reverse side can be soldered with raw acid the same as ordinary zinc. But pure zinc can also be soldered with cut acid, and this is preferable, as it will not eat its way into the zinc structure. Raw acid is the cause of small pin holes along certain soldered joints, although in ice boxes it is more often due to the ammonia brine that sometimes leaks into the ice cans.

The soldering copper should be well dressed, be kept clean and tinned for an inch or so up the nose. See that no rough burned barnacles hang on the copper, as this requires increased heat, and therefore is injurious in a measure to a neat job. The temperature of the soldering copper should be about the same as is used on new tin or galvanized iron—that is, about average between the fusion of the tin or spelter and

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Some of the Numerous Uses of Nickel Zinc.

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where the solder will not flow any more. This temperature is important, because when the copper is hot, a hole is burned in the zinc before you know it. Then, too much heat also reconstructs the zinc structure to a point where it will wear away in these burned places more readily.

Copper Not Too Hot.

If we say, a half hot copper, the mechanic will know what this means, as a copper that does not cause solder to flow freely is "cold," and a copper too hot is "burnt." Hence, the expression "half hot" fits the zinc nicely; it does not cause little particles of matter to flow on top of the solder, and it permits the solder to flow or sweat well in the joint.

A good quality of solder should be used, preferably strictly half and half. The more block tin in the solder the better it will flow and the sooner it melts. In solder the tin makes the fusion point low, while the lead makes it bend easily, being pliable. Pure tin is not good, being too brittle for such soldering.

Where nickel zinc must be soldered on exposed surfaces—that is, on the polished side, a "silver" solder will prove useful. This silver solder has a low fusion point, and also allows for polishing to a bright luster. Otherwise all soldering should be done on the inside or rough side of the metal. Examples as at "H" and "I" show where silver solder may be used to advantage, as well as for details "F" and "G".

Other working habits of nickel zinc will be taken up in later articles.

Wabash Screen Door Moves to 310 South Michigan, Chicago.

The Wabash Screen Door Company has moved from 111 West Washington Street to 310 South Michigan Avenue, Chicago, Illinois, where it will henceforth conduct its business. The new telephone number of the company is Harrison 9380.

Oak Park Sheet Metal Shop Goes After Auto Repair Work.

A nice business has been built up by the Marsh Auto Sheet Metal Works, located at 840 Madison Street, Oak Park, Illinois.

A good deal of the business has come as the result of steady advershow 3 per cent increase; public works and utility construction 10 per cent increase; educational buildings, 26 per cent increase; and miscellaneous, including hospitals and institutions, religious and memorial buildings, and public buildings, 42 per cent increase.

There has been some recession in



BRING YOUR CAR

to us. We can fix your mud guard. We specialize in Sheet Metal for automobiles such as repairing of bodies, mud guards, lamps, etc. Our service is guaranteed to please at prices which are moderate.



One of a Series of Good Newspaper Advertisements Used by Suburban Sheet Metal Shop.

tising in the Oak Park weekly papers, copy being changed every week. A series of illustrations is used, each one showing some different sort of work to be done. Note the well designed name plate.

Department of Commerce Finds Recession in Construction Costs.

In view of statements current in some portions of the press that a depressed condition exists in the construction industry, the Department of Commerce September 2 issued a statement calling attention to the immediate situation as compared with conditions a year ago. value of contracts let in thirty-six states in July, 1924, shows an increase of 10 per cent over that a year ago, and the total contracts let from January 1 to the end of July, 1924, also gained 10 per cent over the same period of 1923. Practically all classes of construction contributed to the increase, although in varying degree, just as there has been relatively greater activity in some cities and districts than in others.

Residential contracts for July this year show an increase of 3 per cent over those of last July; industrial and commercial building combined the cost of construction. The Department of Commerce index number for frame house materials shows a decrease in twelve months from 214 to 199, compared with 1913 as 100, and for brick house materials, from 217 to 201. Other index numbers show a decrease in general construction costs from 222 to 214.

Improved Machinery Is Being Built for Independent Tin Plate Manufacturers.

A mechanical doubling machine now is going through the shops of the Aetna Foundry and Machine Company, Warren, Ohio, for installation at the plant of a Pittsburgh district tin plate manufacturer. When this machine is placed in operation the tin plate maker in question will be the first independent interest in this country to resort to mechanical means for doubling black plate during the process of manufacture. Numerous independent producers of tin plate will install mechanical feeders of the Poole and Davis type for automatically feeding black plate into the tinning machine, twenty of which now are in the process of construction at the Aetna works.

Your windows can sell goods, too.

Taking the Mystery Out of the Steel Business Is Subject of Interesting Article by Mr. Verity.

President of American Rolling Mill Company Writes of Need for Placing Great Industry in Right Light With Public.

HE steel and iron industry has grown to such large proportions that it has been made subject to attack from men who ought to know better as well as from men who, because of their inborn mental slant, can see nothing good in anything great. We publish below a portion of an article recently prepared by George M. Verity, president of the American Rolling Mill Company, which appeared originally in Iron Trade Review. What Mr. Verity says in the following applies with fully as much to any man's business relations with the people whom he serves as a merchant or as a sheet metal contractor:

Take the Mystery Out of Business.

A company with which I am familiar has a program affecting their men which they term, "Taking the Mystery Out of Business." In actual practice they inform their men on just as many of the problems of their business and of general business conditions and on all the things affecting their mutual interest as time and strength will permit. There is a very substantial understanding in that organization.

The great and crying need of big business today, whether it be in the line of commerce, finance or industry, is to "Take the Mystery Out of Business" so far as the public is concerned.

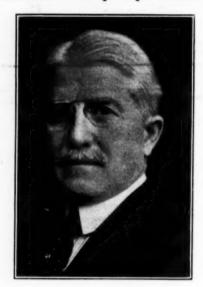
If the public were fully informed concerning the economic laws governing business and of the outstanding problems of each great industry or business, criticism would in many cases be turned into sympathy and unfriendliness into helpfulness.

We, ourselves (the steel industry), must understand that no business can ultimately succeed without the confidence and sympathy of those it is organized to serve, and in some degree even those it does not directly serve. If confidence

and sympathy are desired, they must first be deserved but even if deserved they cannot be secured without much of understanding.

As far as the iron and steel business is concerned it would certainly be benefited if the public more fully understood:

The hazards and cost of production and all the principal elements



George M. Verity.

and factors that make for success or failure.

The proportionate cost of raw materials, of selling, and of advertising.

The production scrap losses, the commercial losses, the cost of replacements and maintenance, and of all kinds of insurance.

The proportion of every dollar received that is paid out in compensation for labor (all human effort).

The amount and percentage on investment of compensation paid to capital.

The amount that in each fiveyear period should be reserved as surplus to cover needed development and unexpected losses.

The time, effort, and money expended for safety programs, and in providing incentives through bonus schemes and plans for advancement.

The great progress made in things affecting human life, human happiness, and opportunity for advancement, and the very satisfactory relations that exist in many places.

The fact that the American accomplishment of large scale production taken as a whole, has in actual practice proved to be a larger factor in securing higher standards of living.

If the public in general were informed as to the time and effort expended to accomplish and make progress in all these things, sympathetic coöperation and greater national stability would be the inevitable, ultimate result.

The intricate and complex problems of the steel business necessarily have developed a class of hard working, extremely practical, serious-minded men, who have had all too little time to study the psychology of the public mind as compared to men in some other lines of human effort who have come more closely in contact with the consuming public.

While the iron and steel institute, representing almost the entire industry as it does, is well fitted to do this great and needed work, it would certainly make for progress if it would create a department of public psychology and publicity, which, having all the facts, would present them in a manner that could be understood; and, through the clearness, frankness, and completeness of its statements, would create that measure of understanding of the problems, policies, and accomplishments of the steel industry that would make for sympathetic coöperation.

Of this we can be certain that the moral and economic forces of the world must be equally recognized in all human planning if disaster is to be averted and progress assured. There are all too many who insist that the laws of economics govern all business, irrespective of moral or other issues. There are others who seem to be interested in moral issues only and who give no concern to the inexorableness of economic law.

Both are equally wrong. There is no morality worth the name among savages or bankrupts.

In this civilization the world cannot continue to exist and human life be either happy or prosperous unless the legitimate business of the world succeeds. There can be no such thing as material success unless the laws of economics are properly respected.

It is, however, so clear that it is past all argument, that an economic structure built on a foundation of moral instability is like building one's house on the sands of the seashore. On the other hand, moral stability can be assured and moral progress made only where the laws of economics are respected and sound business principles employed in all human affairs.

The Responsibilities of Steel.

The iron and steel industry has reached such proportions that it cannot escape its larger responsibilities to the community at large. In spite of all its multitudinous worries and obligations, it must, along with every other great industry or undertaking, assume this additional responsibility if it is to secure and maintain that degree of confidence and respect of the public that will insure its ultimate and permanent success.

The honest contender for and defender of moral issues must be made to see things as they are, and, if real peace and progress are desired, must coöperate with those who are so largely responsible for our material welfare. However, the responsibility for better understanding of these things rests largely with the captains of commerce, finance, and industry, as they control that great, mysterious thing called business.

Steel has become a monumental business, it provides the framework not only for industry, but for our present civilization. Its history is replete with the lives of strong men. There has, however, been too much of isolated accomplishment among the gigantic institutions that have grown up in this field, and not enough of real constructive coöperation among the big men of the industry.

The whole civilized world is suffering from a lack of understanding and appreciation of what has been accomplished in this, the most humane age, that history records. In spite of the fact that individual opportunity and the possible returns for worth-while effort were never so great, the world is full of unrest and discontent.

The distinguished author of "The Road Away from Revolution" says that the radicalism of the day is directed toward capitalism. That is undoubtedly true, but it is not new. Since time was, the man who had not has been in a greater or less degree antagonistic toward the more frugal man who had.

We should, however, take courage from the fact that we are a nation of home-owners and property-holders, with large savings accounts, and that the man who owns a home or a small savings account is just as much interested in a system that protects him in that ownership as is the man of larger means.

It is, however, the task of every man, and of every interest, large or small, who does believe in property rights and in individual opportunity for advancement, to more clearly visualize to all the world the soundness of the so-called capitalistic system, which is nothing more or less than the right of individual possession of the fruits of one's labors.

It is truly a crucial time in world history. Who is better prepared to make a worth-while contribution toward a constructive solution than the big minds and great hearts that must be back of every big business venture?

There is no more forward-looking or patriotic group of men than those engaged in the manufacture of iron and steel, but if we want to see the principles and ideals of this great liberty-loving America preserved and perpetuated in the interest of all, we must certainly make a greater contribution toward that end.

We can and should endeavor to create a great steel industry spirit just as we are constantly working for plant spirit in our individual organizations; and in all things that affect the foundations of the industry itself or the public good, we should think and act in a manner worthy of the great opportunities and responsibilities that are ours, and in a way that will command the public confidence.

Iowa Sheet Metal Contractors Adopt Trade Mark.

In the accompanying illustration is shown the trademark which has been approved by the officers and directors of the Iowa Sheet Metal Contractors' Association. The design was worked out under the direction of R. Nason Friend, chairman of the Publicity Committee and vice-president of the association.

It is the hope of the officers that



Trademark of Iowa Sheet Metal Contractors' Association.

this trademark will be the universal insignia and guarantee of good sheet metal work in Iowa, and they urge that all members secure electrotypes for use in their advertising. The price is \$1 each, whether in the size shown or twice as wide and deep. Orders, with checks for the necessary amount, should be sent to Secretary William Thomson, P. O. Box 513, Mason City, Iowa.

It may be and it probably is necessary to take some chances in business, but it is not necessary to make a gamble of your business by taking frequent and unnecessary chances.

Buckwalter Shows a Shorter Method of Solving Frye's Circle Problem.

Harry Frye has surely got the pens to say nothing of the brains of sheet metal men working.

Here's the latest from J. P. Buckwalter on the Harry Frye circle problem:

To American Artisan:

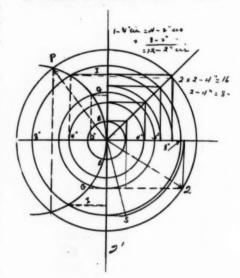
The "circle" problem method used by Mr. Frye June 7th requires nearly double the number of moves to secure the result, and a saving may be effected, in this and in similar examples—where a comparatively large number of small, equal diameters are included.

Mr. Frye took the 4-inch diameter circle and, with twelve 2-inch diameter circles made the first combination.

By terms of the problem we have 2-inch, 4-inch and 5-inch diameter circles, and we can readily provide an 8-inch diameter circle, which, we know is equal in area to the sum of areas of the 4-inch and the twelve 2-inch diameter circles Mr. Frye used: The 8-inch diameter circle being equal to sixteen 2-inch circles in area, may be taken as the first base circle, thus avoiding much work.

Having adopted the base circle, draw its corresponding intersecting circle, then using Mr. Frye's "stepoff" method, combine the 8-inch circle with the remaining 2-inch and 5-inch circles, determine their respective arc intersections and their projections: These are represented by (E), (G) and (I). Lay them off from common center O- if all are used, or, if only (E) and (G) are to be taken, [(I) considered as already used, being automatically in position—as shown in O-4"], then lay off (E) and (G) from 4", erect the vertical and join the intersection with common center O, securing the resultant diameter or the radius, equal to 4.82 inches.

Such problems having so many small equal circles may well be treated by the tangent intersection method, particularly well adapted for a graphical solution: The small circles may be used in pairs, which may then be doubled, as shown in quadrant No. 1, the 4-inch paired, the result paired again, securing the 8-inch circle, which represents sixteen 2-inch circles in area, and then we only need to note tangent intersections with the remaining 2-inch and 5-inch circles, securing the resultant radius shown in quadrant No. 2, which may be compared with result secured in quadrant No. 4, which may be regarded as a combination of two methods, in either case dispensing with much work Mr. Frye used to secure the same result. The 8-



inch base circle may also be used in connection with the versines, or their representatives (E) and (G), shown in quadrant No. 3.

In pairing, the resultant always lies along the 45-degree diagonal, so that but one tangent intersection is needed in most cases, making the work "more simple and efficacious." If results are mainly considered, in such instances, just adopt the method calculation:

We have 13 circles 2-inch diam. Area is 13 Pi.

One circle, 4-inch diam. Area is 4 Pi.

One circle, 5-inch diam. Area is 61/4 Pi.

Total area is 231/4 Pi. Radius is 4.82 inches.

Now, Greetings All: Do your "stuff"; no duty shirk, Condense, do no needless work.

Be careful, and be more efficient, Do it well, whatever is sufficientAnd no more: Don't run the risk Of criticism: Professor T. S. Fiske

Might "Bawl you out—"Get your goat,"

If he sees just what you wrote. Respectfully,

J. P. BUCKWALTER.

Macon, Georgia.

Sea Coast Store Fronts Now Being Made of Copper.

Copper store fronts are finding especial favor among merchants whose establishments are along the sea coast, for copper can successfully withstand the corrosive action of salt air. At Coney Island—one of America's popular "fun-spots"—merchants along the boardwalk have found that, with the exception of copper, ocean spray soon corrodes metal store fronts. Copper is immune from this destructive action of the sea, and this accounts for the growing general use of copper store fronts at Coney Island.

Machinery Ordered for New Mill of Youngstown Sheet and Tube Company, Brier Hill Division.

Contracts for drying, oiling and stretching machines and other miscellaneous equipment for the new 8-unit sheet mill now under construction at the Brier Hill Division of the Youngstown Sheet and Tube Company, Youngstown, Ohio, have been placed with the Aetna Foundry and Machine Company, Warren, Ohio.

It Pays to Show Interest in Customer's Affairs.

Instinctively the salesman should feel toward every customer that he wants to make a friend of that customer. Your interest should extend beyond the purchase in question at that immediate time. Questions about the customer's family, his hobbies, previous purchases — all tend to register in his mind that you have a greater interest in him than merely taking his money.

How to Make An Effic ent and Conevnient Slate Punch*.

As an item of interest to roofers in connection with slate and other shingles that are not perforated for nailing when received, the drawing illustrates the construction of a "home made" nail hole punch.

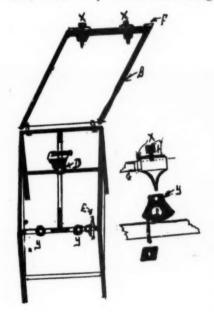
For a number of reasons it is good policy for the roofer engaged in the business to any considerable extent to have one of these punching machines made for his own convenience and use, as he may want to change the lap from that allowed. Slate shingles are shipped in carload lots and are not punched for nailing. When punched, if ordered so, at some quarries an extra charge by the square is made. With this machine the roofer can go over his carload of slate, assorting the heavy, medium and light, punching the shingles at the one operation, with scarcely any additional time required. Then again, if a car of slate shingles is set on some railroad siding for a job of roofing at a distance, he can dismount the punch frame and take the machine with him onto the job, and set some one of his "outfit" to preparing the shingle nailing for without loss of

Some years ago I had a machine made by a carpenter and blacksmith that did the work to perfection and was always satisfactory by reason of its lightness in weight for handling and transportation. We are now passing a good thing along for the benefit of other craftsmen by giving the following description:

The hardwood frame is made from 2x2-inch stock, with the points morticed. The size, 16x24 inches on the inside, is given to accommodate the larger size barn shingles, 14x28 inches. Slots are made in the front and center pieces, as shown by the illustration, for the purpose of allowing a quarter-inch bolt to slip easily along their lengths to adjust the slide gauges D and E, for length and width, giving the proper

location for the nail holes. Hand bolt nuts can be used at D and E, or ordinary nuts can be tightened with an S wrench. Large iron washers are used with all nuts next to wood.

The punch x and the disk y are shown in position to the right of the frame c. The blunt end of the punch should be the size of a slating nail. The body of the punch is slipped over the top edge of an iron bar, as shown at G, and received by the set bolt H. The disk is adjusted over the wood slots by means of a bolt extending up through the slot, and entering into a threaded hole at the side of the hollow, "I," in the disk, which is provided for taking



care of the dust and punchings, and keep the hole at "y" from clogging. The disk can be drawn tight against the wood by using nuts and washers.

Bar iron 1/8x1 inch is used to make the drop punching frame. The side bars "B" are of a length that will allow them to extend from rod "A" and be formed to a square angle at F, giving two inches on the end of each bar for the angle in which bolt holes are drilled to engage holes in straight bar, then the end and side bars are bolted tightly together after the slide punches have been slipped over the bar as illustrated.

The points of the punches should rest over or tap the center of the holes in the discs when in use.

A hole in the side bars B, at the

opposite end from F, is drilled or made to admit a 3%-inch rod, which is threaded deep enough at each end to accommodate a nut on the inner as well as the outer side of the bar. Then nuts can be run down the thread to abut the bar from the inside.

The ends of this rod can be passed through "eye bolts" which are bolted through the wood frame, as shown, forming hinges for the bars to revolve over, when the bars can be firmly secured in place by tightening up nuts on the outside end of the rod at A.

Shingles should be punched for nail holes with the smooth side up, which will give a countersink to the rougher side for the nail head, the latter side going to the weather.

By bolting or clamping on the legs and braces of this punching machine instead of being made rigid, it can be "knocked down" and packed into a small space for transferring from building to building as required.

Advertisements and Show Cards Without Prices Are Like Road Signs Without Mileage.

If you omit prices from your advertising and show cards you can count on people thinking your prices are high, and probably they will think correctly.

Notes and Queries

"Little Draft Man" Regulator.

From The Peninsular Furnace Company, Louisville, Kentucky.

Please tell us who makes the "Little Draft Man" regulator.

Ans.—It is made by the Sahlen Manufacturing Company, Grand Ans.—It is made by the Sahlien Rapids, Mich.

Galvanized Pipe.

From Backman Sheet Metal Works, Des Moines, Iowa.

Kindly advise us where we can purchase light gauge galvanized pipe which is split to allow for setting on top edge of galvanized tanks to form a finish.

Ans.—Robertson Brothers Manufacturing Company, 5401 Western Avenue Boulevard, Chicago, Illinois,

^{*}Written especially for AMERICAN ARTI-SAN by L. S. Bonbrake, County Hospital, Peoria, Illinois.

Hunting Equipment Window Display Creates Interest and Builds Departmental Business During Fall Season.

Twin City Hardware and Heating Company Reproduces Actual Scene of Lake Region to Enhance Display.

AVID LLOYD GEORGE has
the unfailing habit of always
doing the most important thing first,
even carrying it to the extent of cancelling all current engagements and
plunging into the work at hand,
often to the extreme chagrin of
many notables who found it necessary or desirable to confer with him,
which many did during the late war.

Getting a thing done when it would do the most good was the ever persistent purpose of the little Welshman, who has risen from the

store are the advance agents of the store, telling the community what its needs are going to be within a short time and extending a warning to supply the need before the season actually arrives.

The accompanying illustration is that of a window display made for the Twin City Hardware and Heating Company, 1926 University Avenue, Minnesota Transfer, Minnesota. It is the call of the wilds to the hunter before those wilds have actually made their call, in order

woodwork are filled with bargains and placed in one of the prominent aisles of the store. A good-sized, readable sign is placed on each load of bargains, giving the price and saying a few words about the value of the merchandise. This is an excellent way to sell out a lot of the dead stock or dispose of specials that have been bought for trade stimulation. One of the wheelbarrows in the Raymer store was recently filled with a popular-priced make of hammer, another with

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Hunting Equipment Window Display Which Is the Veritable Embodiment of Timeliness, Made for the Twin City Hardware and Heating Company, 1926 University Avenue, Minnesota Transfer, Minnesota.

station of cobbler's apprentice to the prime minister of one of the greatest empires the world has ever known.

The item of timeliness is no less important to the retail merchant whose business existence depends upon his ability to supply the needs of his community when those particular goods are most needed. Nothing can be gained by the customer nor is there any special advantage in showing goods that are not in season. How many pairs of ice skates and hockey sticks could a merchant sell in the heat of a summer day? None.

This element of timeliness is most strikingly portrayed in the window display. The window displays of a that the hunter can prepare himself to take full advantage of the call when it really comes. This is a work-a-day world and unless someone makes it his business to keep watch of the needs of the community,

Again we repeat that the timeliness of the window display has a certain parallel in the little white-haired Welshman to whose will all England bowed during the great willful conflagration created by man which swept the earth.

Wheelbarrow Serves Well as Bargain Counter.

Wheelbarrows have a new use in the Raymer Hardware store. Four or five barrows with bright red hatchets, and so on.

Load up a couple of wheelbarrows, price tag the articles and move them up in the front of the store. You should be able to sell the wheelbarrows, too. It's a good idea, and ideas are the things that help the goods to sell. Why not try it out?

Department of Commerce Reports Increase in File and Rasp Production.

The Department of Commerce announces that, according to reports for the biennial census of manufactures, 1923, the establishments engaged primarily in the manufacture of files and rasps in that year reported such products valued at \$11,361,939, together with other classes of products valued at \$256,629, making a total of \$11,618,568. The rate of increase represented by this total as compared with 1921, the last preceding census year, was 51.9 per cent.

In addition, files and rasps were manufactured to some extent by establishments engaged primarily in other industries. The value of these commodities thus made outside the industry proper has not yet been ascertained, but will be shown in the final reports of the present census.

The department also announces that, according to reports for the biennial census of manufactures, 1923, the establishments engaged primarily in the manufacture of saws in that year, reported such

products valued at \$28,812,537, together with other classes of products valued at \$1,829,321, making a total of \$30,641,858. The rate of increase in the total value of products as compared with 1921, the last preceding census year, was 68.5 per cent.

In addition, saws were manufactured to some extent as secondary products by establishments engaged primarily in other industries. The value of the saws thus made outside the industry proper in 1921 was \$853,333, an amount equal to 4.7 per cent of the total value of products reported for the industry as classified. The corresponding value for 1923 has not yet been ascertained, but will be shown in the final report of the present census.

ers of American Artisan would like to know.

Dennis Hotel Will Not Be Open During Hardware Conventions in Atlantic City.

In announcing hotel arrangements for the Seventh Annual Meeting of the Automobile Accessories Branch of the National Hardware Association, to be held October 13th to 16th at Atlantic City, Secretary-Treasurer T. James Fernley states that Hotel Dennis will close its doors on September 15th for reconstruction.

The business sessions and exhibit will be housed at Hotel Shelburne, which is operated on the American plan, with rates at \$8.00 without bath.

Making Collections Is Every Bit as Important as Making Sales.

There is nothing mysterious about credits. Most merchants must do more or less credit business. Most of you can determine what customers are likely to be safe credit risks. It remains for you then to see that the details and the system necessary in keeping up-to-date on outstanding accounts is handled properly, so that no one customer can keep piling up bills after payments are overdue on previous purchases, and to see that credit is not being extended promiscuously at a time when our business cannot afford it.

Intelligent credit terms and tactful collection methods will point out to our customers that we need our money to carry on our business, and the persistent and insistent dealer will get his money.

Let the merchant remember that it is worse than useless to spend good money in buying, advertising and selling hardware unless he receives his pay for it, and that it is as much a part of his business to see that payments are made as it is to sell the goods in the first place.

Find one who boasts that he is not a "party man" and you will find one who seldom votes, but is always "ag'in the government."

Is the Odd Lot Department Practicable for the Merchant in a Small Town?

Can Such a Department Be Conducted Elsewhere Than in the Basement? Is a Question Asked.

A RE the skids being put under the perpetual sale in small stores? A new form of merchandising odd lot goods is rapidly coming into vogue in the smaller stores and shops. Although the practice of consigning odd lot goods to a special department has been in use for a long time in the large department stores, it has been thought impractical for use in the smaller stores until recently.

The reason perhaps for this nonuse has been mostly psychic. The small storekeeper thought that because he had no basement the odd lot department was an impossibility. Then, too, the force of habit has an important influence upon many of the small town dealers when it comes to making any kind of change. The more progressive men in the trade have, however, come to realize that the sale can be over done as well as anything else and these men have abandoned the old policy, to some extent at least, of depending entirely upon the mark down sale to move odd lots. They have established a regular odd lot department and advertise it as such.

They find that with a 10 per cent reduction in price and by having the department in a convenient and easily accessible location in the store (whether they have a basement or not) moves out the odd lots quickly and with less trouble and confusion than the time worn mark down sale.

Every well informed merchandiser knows that there are classes of buyers as well as classes in society.

There is one class of buyer in particular that can recognize a bargain in merchandise whether it is marked "on sale" or not. For these people the odd lot department is a haven of refuge. They make a practice of dropping in at regular intervals to look the stock over. They have nothing definite in mind, but if they see something that takes their eye, they buy, and let it be said that in this way they buy a great deal more than they would at crowded sale counters.

What has been your experience with the odd lot department? Read-

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Petty Expenses Are of Primary Importance to the Retail Hardware Merchant.

Burden of Store Detail and Management Should Not Distract His Attention from Items of Importance to Business.

MANY retail merchants, prob-ably because of the burden of detail attaching to the conduct and management of their businesses, become lax in the matter of accounting. It is so common a thing, that with even the most serious offenders this laxity is not reckoned with, although it may actually be interpreted into losses so serious as to unbalance if not destroy business which by the expenditure of comparatively little time each day might be substantially successful. Doubtless many will resent the allegation that they are downright lazy about certain vital services they owe to themselves, but the charge stands just the

Perhaps the most dangerous neglect among retailers is their failure to record or charge against expense minor outlays which constitute constant little drains. They amount to hundreds of dollars at the end of each year.

Certainly no less important, and so long a habit that it seems almost impossible to correct, is the drain resulting from the withdrawal of goods from the store shelves to meet household needs, without charging them against the merchant's own personal account.

How One Found the Road.

"A retail merchant in a small town near to New York had the former habit in such malignant form up to two years ago that he never charged anything to himself and his petty expenditures, never gave him as much as passing concern," said Henry Lohmann, writing in the New York Commercial. He was making a living in his store, but scarcely more.

One day a friend directed his attention to the fact that he was spending money in carefares to and from market, and otherwise giving away money promiscuously without ever knowing the day after where or for

what it went. He did not even realize that it was gone and, of course, did not think to calculate that at the end of the year these expenditures must have added something to his cost of doing business, not to mention his personal tax return.

The case of this particular merchant is not an isolated one by any means. He is—or was—one of a great number. But his friend convinced him that he was losing money for himself, and pointed out some ways in which it was being wasted. He began to correct the fault and today he is successful.

Shall I mention a few of the items of expense which represent leaks sometimes ruinous to retail merchants' businesses? They will appear simple—even ridiculous—to some, but they are none the less quite as vital as the bigger items of expense which are usually watched with great care.

Some Items of Expense.

Take carfare, for instance. And what of stamps and envelopes? Gasoline for the flivver costs real American dollars. Paying for it out of the pocket without posting an item of expense may seem trivial when in reality it is highly important. Then there is the expense of entertainment and donations to charity or whatnot. Add them together at the end of a given period if a record has not been kept before, and the result will be surprising. The latter two items are, of course, directly chargeable to advertising.

And then, what of the many items that find their way into the garbage can? When they were bought, a margin of profit was figured on the sale of the entire lot. If there is waste, and no credit can be claimed from the wholesaler, it becomes at once an item to be charged to profit and loss. And there it should be charged—without delay.

Outside telephone calls cost money. It has been said that occasionally there are losses due to bad debts, and sometimes it costs money to collect money.

There are, indeed, so many small items of expense the retailer cannot afford to forget, that he should charge himself with the responsibility of taking careful account of them. They are vital to the financial statement at the end of the business year, for without them the record cannot be completed. In making out his income tax the merchant is asked only to be fair to himself and to his government.

Keeping the Record Straight.

Now in the matter of using goods from his own stock for his own use without charging them or in spending money which is not recorded in the record of the day's business, the retailer makes his business show less in volume and income than it really has. This makes his yearly statement fraudulent. He violates the law when he makes out his income tax based upon such a record of his business.

There are so many things to be watched that a retailer might find it profitable to spend less time doing other things to give closer thought to his expenses and costs. He should take into account depreciation of his trucks, fixtures and furniture. And he would do well to pay himself a salary and then pay for his personal items out of it—to himself.

These are little things, yes—but they have driven more retailers to the wall than probably all other forms of bad management put together.

But the Elephant Carried the Advertisement.

"Why should I advertise," said the hardware man who had been approached by the advance publicity agent of a circus coming to town?

The agent was trying to secure an advertising contract from the hard-ware man for the two sides of the elephant that would be in the parade.

"I see no reason why I should ad-

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vertise," said the hardware man. "I've been in business here for the last twenty years. I have no competitors and everybody in town knows where my store is and just about what I have in stock. When they need something they come and

The publicity agent was a resourceful man and was entirely equal to the task of overcoming the resistance the lethargy of the man before him offered.

He turned to the man before him, after looking at the old decrepit church across the street and said: "How long has that church been there?"

"About 75 years," drolled the hardware man.

"Seventy-five years, eh," said the publicity agent, "and they still ring the church bell every Sunday morning, don't they."

The hardware man saw the point, and the elephant was appropriately covered with a neat hardware advertisement on both his broad sides when he appeared in the parade.

Make Your Store a Real Information Bureau.

It is good business to make your store a sort of information bureau for out of town people. Advertise the fact that you are in a position to furnish information as to the best localities to visit to get good sport. Then make window displays along the particular lines you are pushing. especially on public holidays or special excursion days, during fall fairs, and on similar occasions.

A sign announcing that your store is a free information bureau for motor tourists is a good stunt; provided, of course, you are actually in a position to give motorists any information they art apt to need about the roads in and out of town, their condition, the directions to take, etc.

When talking with customers do you mumble your words making it necessary for them to ask you to repeat? If so, know that a good many times they do not ask, but go away not knowing what you did say.

Coming Conventions

National Hardware Association Convention, Atlantic City, New Jersey, October 13, 14, 15, 16, 17, 1924. Hotel Head-quarters, Mariborough-Blenhein. T. J. Fernley, Secretary-Street, Philadelphia. Secretary-Treasurer, 505 Arch

American Hardware Manufacturers

American Hardware Manufacturers Association Convention, Atlantic City, New Jersey, October 14, 15, 16, 17, 1924. Hotel Headquarters, Marlborough-Blenheim. F. D. Mitchell, Secretary-Treasurer, 1819 Broadway, New York City. Mid-Year Meeting of the National Warm Air Heating and Ventilating Association and Dedication of the Warm Air Heating Research Residence, Urbana, Illinois, December 2, 1924. Allen W. Williams, Secretary, Columbus, Ohio. Ohio.

Kentucky Hardware and Implement Association Convention, Jefferson Coun-ty Armory, Louisville, week of January 18, 1925. J. M. Stone, Secretary-Treas-

urer, 200 Republic Building, Louisville.
Western Retail Implement and Hardware Association Convention, Kansas City, Missouri, January 13, 14, 15, 1925.
H. J. Hodge, Secretary, Abilene, Kan-

sas.
Texas Hardware and Implement As-

1 exas Hardware and Implement Association Convention, Dallas, Texas, January 20, 21, 22, 1925. Dan Scoates, Secretary-Treasurer, College Station.

West Virginia Hardware Association, Convention and Exhibition, Clarksburg, January 20 to 23, 1925. James B. Carson, Secretary, 1001 Schwind Building, Dayton, Ohio. Dayton, Ohio.

Indiana Sheet Metal Contractors' Association, Convention, Lafayette, February (dates not decided). Leslie W.

ary (dates not decided). Leslie W. Beach, 1136 Main Street, Richmond.
Oklahoma Hardware and Implement Association Convention, Masonic Temple, Oklahoma City, February 3, 4, 5, 1925. Charles L. Unger, Secretary-Treasurer, Oklahoma City.
Nebraska Retail Hardware Association Convention and Exhibition, Omaha, February 3, 4, 5, 6, 1925. Convention headquarters, Rome Hotel. Exhibition, City Auditorium. George H. Dietz, Secretary, 414-419 Little Building, Lincoln. Wisconsin Retail Hardware Association Convention and Exhibition, Auditorium, Milwaukee, February 4, 5, 6, 1925. P. J. Jacobs, Secretary-Treasurer, Stevens Point.
Ohio Hardware Association, Convention Convention.

Ohio Hardware Association, Convention and Exhibition, Columbus, February 10 to 13, 1925. James B. Carson, Secretary, 1001 Schwind Building, Day-

ton, Ohio.

New York State Retail Hardware Association Convention and Exposition, Buffalo, February 10, 11, 12, 13, 1925. Headquarters, Hotel Statler. Exposition at the Broadway Auditorium. John B. Foley, Secretary, City Bank Building, Syracuse

North Dakota Retail Hardware Asso-

North Dakota Retail Hardware Association Convention (place not yet selected), February 11, 12, 13, 1925. C. N. Barnes, Secretary, Grand Forks.
Montana Implement and Hardware Association Convention, Helena, February 13, 14, 1925. A. C. Talmage, Secretary-Treasurer, Bozeman.
Pennsylvania and Atlantic Seaboard Hardware Association Convention and Exhibition, February 16 to 20, 1925, at Philadelphia Commercial Museum. Sharon E. Jones, Secretary, 604 Wesley Building, Philadelphia.

Minnesota Retail Hardware Association Convention, St. Paul Auditorium, St. Paul, February 17, 18, 19, 20, 1925. C. H. Casey, Secretary, Nicollet Avenue and Twenty-fourth Street, Minneapolis.

New England Hardware Dealers' Association Convention and Exhibition, Mechanics' Building, Boston, Massachusetts, February 23, 24, 25, 1925. George A. Fiel, Secretary, 10 High Street, Boston.

Michigan Retail Hardware Association Convention, Grand Rapids, February 24, 25, 26, 27, 1925. Hotel headquarters, Hotel Pantlind. A. J. Scott, Sec-

ters, Hotel Pantlind. A. J. Scott, Secretary, Marine City.
Southeastern Retail Hardware Association Convention and Exhibition, Birmingham, Alabama, May, 1925. Walter Harlan, Secretary-Treasurer, 701 Grand Theater Building, Atlanta, Georgia.
Arkansas Retail Hardware Association Convention, Little Rock, May, 1925.
L. P. Biggs, Secretary, 815-816 Southern Trust Building, Little Rock.
National Retail Hardware Association, Philadelphia, June, 1925. H. P. Sheets, Secretary, Indianapolis.
National Association of Sheet Metal Contractors, Atlanta, Georgia, June, 1925.

Contractors, Atlanta, Georgia, June, 1925. E. L. Seabrook, Secretary, 608 East Chestnut Street, Philadelphia, Pennsylvania.

Retail Hardware Doings

California.

The Square Deal Hardware Store, of which R. B. Dougall is proprietor, located for the past eleven years at 333 Macdonald Avenue, Richmond, will move to its new location on the southeast corner of Macdonald and Eleventh Streets enth Streets, as soon as the building is remodeled and an addition is completed.

A new store, the Vermont Square Hardware Company, has opened on Vermont Avenue, Los Angeles. Proprietors are Harry and S. C. Weimer and Bert L. Wilshire. The company is capitalized at \$25,000.

Illinois.

Robert G. Nowe, for twelve years in the hardware business at Lee, has purchased W. F. Graves' hardware store at Amboy.

Iowa.

A. S. Bookman has purchased the W. W. Howard interest in the Howard and Bookman hardware store at West Bend, and is now the sole owner.

A deal has been completed at Rutland whereby Mr. Diebler became owner of the Diebler and Koepke hardware store.

Missouri.

Ed F. Buchner of Pierce City has purchased the bankrupt stock of hard-ware of the Rocky Comfort Hardware Company of Rocky Comfort.
The Cohen Mercantile Company,

operating a chain of stores, has pur-chased the Norment hardware stock on the north side of the square, Clin-

Montana.

The Kimpel-Jenson Implement and Hardware Company of Hingham has been destroyed by fire.

South Dakota.

Mr. and Mrs. John Enger have purchased the Cottonwood hardware store at Cottonwood.

Stove Merchant Prepares to Scoop in Business in Fall Coal and Wood-Burning Heaters.

Has No Fear of Mail Order House Competition, Because He Believes in Personal Element to Win.

COLD mornings will soon greet the early riser. Are you prepared to capitalize on these cold mornings and get all the stove business to be had from them? If not, now is the time to do so.

Advertising a heating stove when the sun's rays are blistering hot is not considered good practice and will not be productive of much kick back in the way of orders. However, as soon as the mornings begin to seem the least bit cool, the time is ripe for an advertising campaign to push base burners, soft coal and wood-burning heaters.

The accompanying advertisement taken from the Bluffton, Indiana, *News*, is a typical example of advertisement used in bringing heaters to the fore.

The heading starts out with "Cold Mornings!" giving price, type, and illustration of the stoves in stock.

Some stove merchants feel a dread in the approach of the fall season, believing as they do that the

mail order house competition has them on the run. Their apprehensions are for the most part groundless. There is a very effective method of combating mail order house competition.

Every stove illustrated in a mail order catalog has in addition to its size and illustration the weight given disguised as "shipping weight." Very well, the eustomer enters your store to "price" your stoves. He finds that your stoves are somewhat higher in price than those shown in the latest mail order house catalog which just landed on his porch. He perhaps does not tell you so in so many words, but says he wants to look further. This is the signal for you to bring forth your sales ability.

The mail order catalogue has sold your man on price without resorting to the personal element.

Your have the man before you. You have the stove out where he can see it. He knows the weight of the mail order catalog stove. You know the weight of your stove and the price of both. It only remains for you to show your man that the stove you are selling is cheaper per pound than the mail order catalogue stove to sell him.

Then to clinch the sale you have the further argument that when the mail order stove is shipped he pays the freight, he pays the haulage charges from the station to his home. He has all the trouble and bother of setting the stove up.

On the other hand, a stove purchased at your store is delivered and set up by men experienced in that work free of charge and looked after until in perfect working order.

Go after business which will be available in the early fall at once, and don't worry about the mail order house competition. Beat them with their own smoke.

Who Makes Laundry Stove Without Name and Number?

To American Artisan:

I should like to know who makes a laundry stove that has no name or number on it. The pot on this stove is $3\frac{1}{2}$ inches high, 19 inches across the top and 12 inches across the bottom, inside measurement. It is a 2-hole water heater.

Yours very truly, SWANGER AND THOMPSON.

Promptness and Indolence Are Cultivated Habits— Which Do You Possess?

Promptness. You cannot spend to much time in cultivating habits of promptness. Being prompt in your every day work and activities will win you friends and will get you into good positions that could not otherwise be acquired. Promptness is ostensibly a masculine virtue. Actually, however, many members of the fair sex are equally as expeditious in executing their duties as are the men. Nevertheless there are delinquents in both, and these should work to overcome the failing. Don't just be good, be good for something.



Fall Stove Selling Advertisement Taken from Bluffton, Indiana, News.

Do you know your costs?

Consistent Advertising Is a Systematic, Organized Buying of the Public's Attention.

Therefore, Equip the Buyer with the Best Possible Tools Before Sending "Him" Out on the Job.

I T is conceded by the leaders in the advertising world that the most effective method of getting the attention of readers to the goods is to confine the ad, if it is a small one, to one or at most two articles.

To include all the articles carried in stock in one ad reduces it to a generality, with no definite centralizing factor, thus defeating primary aim of the advertisement. Everyone knows in a general way what

the stock of a hardware store consists of. But unfortunately the hardware man is not dealing in generalties. He must confine his effort to specific sales.

The accompanying advertisement taken from the Elyria, Ohio, Chronicle, verges upon the generality. It is our opinion that the space could have been more profitably employed had prices been attached to the articles advertised. This would have given the reader something definite upon which to hinge an interest and to fill his

As the advertisement now stands the necessity for immediate action is lacking. By that we mean, there is no statement or quotation of price which would compel a decision and this is one of the four fundamentals upon which a good advertisement is based.

The final line in the advertisement sounds a lot like the old fashioned farm machinery auction sale hand bill. There would be nothing against it, but it does not mean any-

The Size of Your Advertisement Is Not Nearly So Important As What You Say and How.

Two men delivered speeches about sixty years ago at Gettysburg. One man was the greatest orator of his day, and he spoke for two hours and a half, and few, if any, can remember a single word that he said. The other man spoke for considerably less than five minutes, and every school child has at some time in his career learned Lincoln's Gettysburg address, and remembers it more or less all his life.

Copy necessarily comes last in the advertising plan, but it is far from last in importance.

MR. FARMER

Our stock of Hardware includes many things of interest to you and your family. We invite you to come to our store and look over the things that you need, find out the price and compare the quality-there is no obligation to buy. We list here a few of the many articles we sell:

> Alcazar Combination Ranges-Burn Coal or Wood and Gas or Oil.

> This is absolutely the best combination range on the Market.

Coal or Wood Heaters-Florence Oil Stoves Combination Coal or Gas Heaters Radiant Fire Gas Heaters

> Ironton Bunsen Burner Heaters Sunbean Cabinet Heaters

Lawson Bath Room Heaters. ster and Keen Kutter Axes

Cross Cut and Buck Saws Hand Saws and Hammers

Wrenches, Bits, Pliers Tools of All Kinds

B. P. S. Paint for House or Barn (All Colors) Special Barn Paint, Red \$1.50 per gal of 5 gal. lots. Auto Enamel (All Colors)

Tractor and Implement Paint Roof Paint

Nails Bolts, Padlocks, Etc.

Roofing Felt in all weights

Forks, Spades, Shovels, Rakes Milk Pails, Galv. Pails

Poultry Supplies

Horse Blankets and Auto Robes Goodyear Auto Tires

Barn Door Rollers and Track Lanterns and Flash Lights Churns, Brooms, Etc.

Easy Electric Washers Electric Washers
Laundry Queen Electric & Power Washers
Galv. Tubs, Boilers, Etc.
Hoover Suction Sweepers
Tea Kettles, Coffee Pots, Etc.
Aluminum & Enameled Wave
Tin, Iron & Wooden Ware

hester Guns and Ammunition Guns and Ammundous
Dux-bak Hunters' Clothing
Pocket Knives and Shears
Butcher Knives

Straight and Safety Razors Sporting Goods

General Hardware and House Furnishings consisting of Hundreds of things too numerous to mention.



421 BROAD ST.

ELYRIA, OHIO

Easy Money, Firmer Commodity Prices and Low Stocks Combine to Speed Recovery Started in August.

Non-Ferrous Metal Prices First Show Resistance to Further Declines Then Rise on News of Ratification of Dawes Plan.

TWO statistical measures of the recent slow recovery in business appeared during the midweek. First, the report on iron production for August showed the first upturn from the steady decline that began in March. Secondly, a further moderate increase in commodity prices, due to the sharp rise in prices of agricultural products, is shown in Dun's monthly "index number."

Pig iron output last month was 1,891,145 tons, a gain of about 6 per cent over July, according to the *Iron Age*. Figures on steel ingot production last month are expected to show an even larger gain. The steel industry is now operating nearly 55 per cent of capacity, with the Steel Corporation close to 60 and the independents ranging from 45 to 60 per cent.

The improved situation of the American farmer is shown in the trend of commodity prices and a narrowing of the "spread" between what the farmer buys and what he sells. The average price of bread-stuffs now stands more than 17 per cent higher than on February 1, while other products have fallen nearly 5 per cent.

Compared with pre-war prices, the average price of breadstuffs now stands nearly 68 per cent above August 1, 1914, while the average of other products shows an advance of about 54 per cent. But some further readjustment in favor of the farmer is still due, if all agricultural products be considered. The combined average for breadstuffs, meat, dairy, and garden products now is about 41 per cent above the prewar average, while the average of all other commodities is up nearly 68 per cent.

Copper.

Copper sold August 28 at 13.25 cents, delivered Connecticut, ½ cent

below the level reached on business the previous week.

When prices reached this level, European buyers showed more interest and exporters increased their f. a. s. bids.

This was followed by an according recovery in the domestic market, to 13.50 cents August 29, prior to the news of the German ratification.

The weakness the past week was evidently superficial, due to the firm position of the major factors in the trade.

Tin.

Tin prices have been irregular, ranging from 51 cents to 53.30 cents. Strength was decided as the market had to catch up with London after the holiday American consumption has been gaining, as tin plate delivered have grown in the past month. Mixed metal business is also improving, as a result of better automobile trade demand.

The London operators who put tin prices to their present levels have held demand, and American consumers at last have reached the point where they are being compelled to buy fresh supplies of tin.

American deliveries in August amounted to 4,805 tons, which was somewhat better than expected.

Lead.

The lead market has been firm, but quiet. Large producers have been selling metal to consumers at prices calculated to keep the market in check, 8 cents, East St. Louis, and 8 cents, New York.

Some business has been done by outside producers in the east, however, at 8.25 cents, New York. Lead consumption is increasing, both by the white lead and by the storage battery trade.

Zinc.

Prime western zinc has shown great resistance to declines, owing to

the fact that American operators and foreign consumers have been steadily inclined to buy on every reaction.

In the past week, prime western zinc reacted to 6.17½ cents, East St. Louis, for a short time, but on the appearance of exporter's bids quickly recovered with sales at 6.22½ cents and then at 6.27½ cents, with 6.30 cents also heard.

A fair business has been done with domestic galvanizers who have been covering galvanized sheet business.

Solder.

Chicago warehouse prices on solder are as follows: Warranted, 50-50, \$33.00; Commercial, 45-55, \$32.25, and Plumbers', \$31.00, all per 100 pounds.

Wire and Nails.

Bookings of wire and nails the past week at Chicago have been satisfactory and jobbers and manufacturers are covering their requirements, but are not buying for stock.

Following in the wake of the crops, demand from southern states is increasing and this condition is expected to move north with the season.

Nails are especially strong. Barbed wire is picking up and while demand for fencing is increasing it is not as strong as might be expected. Prices are unchanged, but are weak.

Tin Plate.

A slight improvement in the demand for tin plate is being experienced by producers. Certain consumers who recently learned their third quarter requirements had been under-estimated placed several thousand boxes additional despite the fact that their September quota still is to come off the mills.

Milk can stock also has been under fairly good demand. With Pitto of 1 aron whi serv

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quar are price heavy production of tin plate during the fore part of this year, and with the industry now operating around 50 per cent of capacity, 1924 from all indications will present a favorable showing from the standpoint of output.

Production plate is firmly quoted at \$5.50 per base box of 100 pounds, Pittsburgh, and desirable items out of warehouse at \$5.25.

The leading interest is operating around 50 per cent of capacity, while independent activities are conservatively estimated at the same figure.

Bolts and Nuts.

Requirements of bolt and nut users at Chicago continue to increase and business is coming to producers in excellent volume. Specifications against third quarter contracts are being filed steadily and indications are that buying for fourth quarter the latter part of this month will be up to the usual mark. Prices are steady.

Sheets.

Sales of sheets entered on the books of most producers in this district have caused a return of confidence, and a firmer attitude on the price situation has resulted.

A better volume of buying is experienced and the upturn in this direction is led largely by the blue annealed grade.

Prices now applying throughout this district include 2.70 cents for blue annealed, 3.50 cents for black, 4.60 cents for galvanized, base, and 4.75 cents for automobile body sheets of No. 22 gauge.

In view of high cost of production, which practically every sheet mill in this country has been facing for many weeks owing to restricted operating schedules, many producers believe as unfilled tonnage increases the present scale of prices will tend upward.

Producers holding this view are showing no disposition to enter business for scheduling late in the fourth quarter at present quotations, but are following the policy of naming prices at the beginning of each month to apply on tonnage for shipment the following month.

Last week sheet mill operations of the leading interest were at 49 per cent, but expectations are that the rate during the present week will show a distinct increase.

Old Metals.

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.50 to \$18.00; old iron axles, \$24.00 to \$24.50; steel springs, \$19.00 to \$19.50; No. 1 wrought iron, \$14.00 to \$14.50; No. 1 cast, \$16.00 to \$16.50, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 8 cents; light brass, 5 cents; lead, 5 cents; zinc, 3½ cents, and cast aluminum, 14½ cents.

Pig Iron Slowly Gains Strength—Shipments Becoming Heavier, While Higher Levels Are Established.

Chicago Quotations on No. 2 Foundry Are \$20.50, Pittsburgh Steady at \$20 and Birmingham \$18 to \$18.50.

A FOUR months decline in pig iron production was checked in August which is the first month to show an increase since March.

This was accomplished entirely by the renewed activities of steelworks furnaces. This group showed a gain of 100,105 tons over August, while merchant stacks were losing 25,066 tons additional.

Total production in August was 1,874,920 tons against 1,783,457 tons in July, a gain of 91,463 tons. The daily average output was 60,481 tons against 57,531 tons.

The August rate represents 54 per cent of that in March. A gain of 5 was recorded in the list of furnaces active at the end of August, the total being 150.

From the market report of Rogers, Brown & Company, all indications point to a further improvement, even though on the whole it may be slight, and the market is gradually taking on a better tone. Inquiries are being put out with more regularity and the tonnage involved covers a wide range for various grades with the exception of steelmaking iron. Some good sized tonnages were purchased by manufacturers of radiation.

The report states further:

"If anything, prices are firmer and this applies particularly to the north. In some districts prices have been advanced.

"Stocks are apparently quite low in consumers' yards, this being indicated by the numerous requests urging deliveries. Shipments are showing some increase, with the result that stocks in furnace yards have been reduced in some districts and this applies especially to Chicago and Buffalo which caused one merchant furnace in the Chicago district to be blown in on the 26th. The steel makers report increased bookings and better operations, although the volume is not yet satisfactory. Better things are exected in the course of the next 60 days."

As to the prices. At Pittsburgh pig iron is slowly gaining strength as producers become more disinclined to accept business at a low figure. No. 2 foundry are stiffening to \$20. The market at Chicago is steady at \$20.50, while at Birmingham quotations are firm at \$10 to \$18.50.

The best pickers of men don't keep picking men.

If one element in business can do a thing better than another and perform a service of equal or greater worth to the people at a lower price, then that is the element that is going to prevail.

Chicago Warehouse Prices on Hardware and Metals.

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

| . METALS | HARDWARE, SHEET | BOLTS. Carriage. Small, roll thread50-10-5% | Damper. Acme, with tail pieces, |
|---|--|--|---|
| PIG IBON. | METAL SUPPLIES, WARM AIR FURNACE | Small and Large cut thread | per doz\$1 1 Non Rivet tail pleces, |
| Chicago Foundry\$20 50 Southern Fdy. No. 223 51 to 25 51 | FITTINGS AND ACCES- | Machine. | per doz |
| Lake Superior Charcoal 29 04 | SUBIES | Small, roll thread 60-5% | COPPERS-Soldering. |
| Malleable 20 50 | SORIES. | Small, cut thread50-10-5% Stove | Pointed Roofing. 3 lb. and heavierper lb. 46 |
| FIRST QUALITY BRIGHT | ADZES. | | 2 1/2 10 |
| TIN PLATES. C 20x28 112 sheets 25 80 | Coopers'. Barton'sNet | BRACES, RATCHET. | 1 1/4 lb |
| Y 29x28 27 25 | White'sNet | V. & B. No. 444, 8 in\$4 54 V. & B. No. 222, 8 in \$ 89 | 1 lb " 6 |
| XX 20x28 56 sheets 15 35 XXX 20x28 16 45 | AMMUNITION. | V. & B. No. 111, 8 in 3 55 | CORD. |
| XXXX 29x28 17 55 | Shells, Loaded, Peters. Loaded with Black Powder 18% | V. & B. No. 11, 8 in 3 02 | No. 7 Std. per doz. banks\$10 No. 8 " " 11 |
| TERNE PLATES Per Box | Loaded with Smokeless | BRUSHES. | CORNICE BRAKES. |
| C 20x28, 40-lb. 112 sheets \$25 10 X 20x28, 40-lb. " 28 00 | Powder | Hot Air Pipe Cleaning. | Chicago Steel Bending. |
| 20x28 20-1b " " 21 30 | Smokeless Repeater | Bristle, with handle, each \$6 85 Flue Cleaning. | Nos. 1 to 6B10 |
| C 20x28, 30-lb. " " 24 20 20x28, 25-lb. " " 20 30 | | Steel Only, each\$1 25 | COUPLING HOSE, |
| C 20x28, 25-1b. " 20 30 C 20x28, 25-1b. " 23 20 C 20x28, 20-1b. " 17 80 V 20x28, 20-1b. " 20 65 C 20x28, 15-1b. " 16 55 | Black Powder20 & 4% | BURRS. | Brassper dez. \$2 |
| 7 20x28, 20-lb. " " 20 65 2 20x28, 15-lb. " " 16 55 | Nitro Club | Copper Burrs only40-10% | CUT-OFFS. |
| C 20x28, 12-lb. " " 15 25 C 20x28, 8-lb. " " 18 55 | Arrow | | Kuehn's Korrekt Kutoffs: Galv., plain, round or cor. r |
| | Gun Wads-per 1000. | BUTTS. | Standard gauge |
| COKE PLATES. okes, 80 lbs., base, 20x28, \$12 70 | Winchester 7-8 gauge 10&71/2 % 9-10 gauge 10&71/2 % | Steel, antique copper or dull brass finish—case lots— | |
| okes, 90 lbs., base, 20x28. 12 95 | " 11-28 gauge 10&7 1/2 % | 3½x3½—per dozen pairs \$3 66 4x4 4 92 | DAMPERS. |
| okes, 80 lbs., base, 20x28.\$12 70 okes, 90 lbs., base, 20x28. 12 95 okes, 100 lbs., base, 20x28. 13 25 okes, 107 lbs., base, IC | ASBESTOS. | Heavy Bevel steel inside sets, | "Yankee" Hot Air. 7 inch, each 20c, doz\$1 |
| kes, 135 lbs., base, IX | Paper up to 1/16 fc per lb. | case lots | 8 " 25c, " 31 9 " 30c, " 3 10 " " 32c, ' 3 |
| 20x28 15 40 okes, 155 lbs., base, 56 | Rollboard | Steel bit keyed front door sets, each | 10 " " 32c, ' 3 |
| sheets 8 80 bkes, 175 lbs., base, 56 | sq. ft. to roll)\$6.00 per roll | Wrought brass bit keyed | Smoke Pipe. |
| sheets 9 70 okes, 195 lbs., base, 56 | AUGERS. | front door sets, each 3 25 Cylinder front door sets, | 7 inch, each |
| sheets 10 65 | Boring Machine 40&10% | each 7 50 | 7 inch, each |
| BLUE ANNEALED SHEETS. | Carpenter's Nut | CEMENT, FURNACE. | 12 " " |
| tase 10 gaper 100 lbs. 3 80 | Hollow. Stearns, No. 4, doz\$11 50 | American Seal 5 th same note 45 | Reversible Check. 8 inch, each |
| ONE PASS COLD ROLLED | Post Hole. Iwan's Post Hole and Well 35% | 50-lb. cans, 90 25 lb. cans, 200 | 9 " |
| BLACK. io. 18-20per 100 lbs. \$4 30 | Vaughan's, 4 to 9 in \$15 60 | Asbestos, 5 lb. cans, net 45 Pecoraper 100 lbs. 7 51 | DIGGERS. |
| o. 22-24per 100 lbs. 4 35 | AXES. | | Post Hole. |
| o. 26per 100 lbs. 4 40 o. 27per 100 lbs. 4 45 | First Quality, Single Bitted (unhandled), 3 to | CHAINS. | Iwan's Split Handle (Eureka) |
| o. 28per 100 lbs. 4 50 o. 29per 100 lbs. 4 60 | 4 lb., per doz\$14 00 Good Quality, Single | % in. proof coil chain, per 100 lbs | 4-ft. Handleper doz. \$14 7-ft. Handleper doz. 36 |
| GALVANIZED. | Bitted, same weight, per | American coil chain40 & 10% | Iwan's Hercules pattern, |
| To. 16 per 100 lbs. \$4 75 | doz 13 00 | CHIMNEY TOPS. | per doz 14 |
| o. 18-20per 100 lbs. 4 90 o. 22-24per 100 lbs. 5 05 | BARS, CROW. | Iwan's Complete Rev. & Vent | V. & B. Star, 12-inch Length. |
| To. 26per 100 lbs. 5 20 To. 27per 100 lbs. 5 35 | Steel, 4 ft., 10 lb | Iwan's Iron Mountain only35% Standard30 to 40% | %, 5/16 and %, each\$ |
| To. 28per 100 lbs. 5 50 to. 30per 100 lbs. 6 00 | 5½ ft., 24 lb 1 60 | | %, each |
| | DADO WEDGUTMO | Cold. | 1%, each |
| BAR SOLDER. | BARS, WRECKING. V. & B. No. 12 | V. & B. No. 25, ¼ in., ea. 10 26 | V. & B. Star, 18-inch Length. |
| 50-50per 100 lbs. 33 00 | V. & B. No. 24 0 42 | Diamond Point | %, each |
| 45-55per 100 lbs. 32 25 | V. & B. No. 30 0 48 V. & B. No. 330 0 63 | V. & B. No. 55, 1/4 in 0 33 V. & B. No. 55, 1/4 in 0 45 | 1%, each 1 |
| | V. & B. No. 330 0 63 | Firmer Bevelled, | EAVES TROUGH. |
| ZINC. Slabs 7 25 | BITS. | Round Nose. | Milcor |
| SHEET ZINC. | All Vaughan and Bushnell. Screw Driver, No. 30, each \$ 30 | V. & B. No. 65, ¼ in 0 33 V. & B. No. 65, ¼ in 0 45 | Galv. Crimpedge, crated75-5 |
| sk lots, stock, 100 lbs 11 50 | All Vaughan and Bushnein: Screw Driver, No. 30, each \$ Screw Driver, No. 1, each 18 Reamer, No. 80, each 45 Countersink, No. 13, each 25 Countersink, Nos. 14-15, each 30 | Socket Firmer. | ELBOWS-Conductor Pipe. |
| ss than cask lots, 100 lbs. 11 85 | Reamer, No. 100, each 45 Countersink, No. 13, each 23 | V. & B. No. 50, % in 0 31 V. & B. No. 50, % in 0 62 | Galv., plain or corrugated, |
| BRASS. eets. Chicago base18 4 c | Countersink, Nos. 14-15, each 30 | V. & B. No. 50, % in 0 62 | Crimp Std gauge |
| lll Base | Wood. BLADES, SAW. | CHUCKS, DRILL, | 26 Gauge |
| ire, base | Atkins 30-in. | Goodell's, for Goodell's Screw DriversList less 35-40% | Square Corrugated. |
| ods, base15c | Nos 6 40 26 \$8 90 \$9 45 \$5 40 | Yankee, for Yankee Screw | Milcor |
| COPPER. | BLOCKS. | Drivers\$6 00 | Standard gauge50 26 gauge30 |
| eets, Chicago base20%c | Wooden45% | Adjustable. | Portico Elbows. |
| tire, No. 9 & 10 B. & S. Ga. | Patent45% | No. 100, Door (Stearns) | Standard Gauge Conductor Pip plain or corrugated. |
| ire, No. 11, B. & S. Ga17c | BLOW TORCHES (See Firepots). | doz\$22 00 Carpenter's. | Not nested |
| LEAD. | Steve. BOARDS. Per Doz. | Steel Bar. List price plus 20% | ELBOWS-Stove Pipe. |
| ALERIA AF. | Crystal, 33"\$23 90 | Hose. | 1-piece Corrugated. Uniform. |
| | | Sherman's brass, %-inch | De |
| ar10 50 | Wash, No. 760, Banner Globe | per doz\$0 48 | 5-inch |
| eet. Full Collsper 100 lbs. 12 15 | No. 760, Banner Globe (single)per dox. \$5 25 No. 652, Banner Globe | Double, brass, %-inch, per doz. 1 20 | 5-inch |
| merican Pig 9 50 ar 10 50 sect. Full Colls per 100 lbs. 12 15 Cut Colls per 100 lbs. 12 40 | No. 760, Banner Globe (single)per doz. \$5 25 No. 652, Banner Globe (single)per doz. 6 75 No. 801, Brass King. | Double, brass, %-inch, per doz | 5-inch |
| r | No. 760, Banner Globe (single)per doz. \$5 25 No. 652, Banner Globe (single)per doz. 6 75 No. 801, Brass King,per doz. 8 25 | CLINKER TONGS. | 7-inch Special Corrugated. |
| r | No. 760, Banner Globe (single)per doz. \$5 25 No. 652, Banner Globe (single)per doz. 6 75 No. 801, Brass King. | CLINKER TONGS. | 7-inch |